

HIGH TEMPERATURE CAMERA

acqua^{tec} High temperature Integrated IP Camera



ACQUATEC Series

ACQ07X005/6

Functional Description

ACQ07X005/6 is an integrated solution that combines the performance of ACQUATEC housings with the efficiency of CAMTEC high resolution IP low light cameras, providing clear crisp images of the combustion process in boilers, kilns, furnaces, incinerators and other combustion chambers.

CAMTEC IP low light cameras are network cameras based on a high resolution HD CMOS image sensor with resolution up to 1920x1080 pixel (2MP). Within a powerful microprocessor many image settings can be done to produce high quality video even in the most challenging lighting conditions present in the high temperature industrial process.

Multi-streaming and multi-encoding for MJPEG, H.264 can guarantee a wide range of solutions for view, stream and record the images coming from CAMTEC IP low light cameras over any Ethernet network.

Appropriate factory settings (AE Presets) joined to a guide menu extremely convenient for the user, allow an easy and fast installation of the cameras and, consequently, with reduced costs, in each specific situation of surveillance and control.

ACQUATEC housings are endowed with high efficiency water cooling system allowing operation in temperatures up to 400°C (≈752°F). They also are "pressurized": an integral compressed air system supplies clean air (or appropriate gas) for cooling and particulate removal from the lens. In such a way the lens doesn't require any expensive protection glass, crystal and protection porthole. A constant supply of clean air is essential for proper camera operation and protection: GFATEC series represent an effective filtration system able to remove contaminants and to provide high quality clean air in industrial environments.

ACQ07X005/6 are completed with swivel bracket for wall mounting, interconnection kit, power supply box with input 96-264Vac, all assembled and set in our factory in Italy. Version with PoE power supply is available too.

Optional system accessories include hydraulic-pneumatic and electrical control cabinet (CABTEC series), water cooling closed circuits.

Available models

ACQ07X005	Integrated IP low light camera housing with air and water cooling, 3-10,5mm optic, 96-264Vac power supply;
ACQ07X0P5	as ACQ07X005, but with Power-over-Ethernet IEEE 802.3af;
ACQ07X006	Integrated IP low light camera housing with air and water cooling, 5-60mm optic, 96-264Vac power supply;
ACQ07X0P6	as ACQ07X006, but with Power-over-Ethernet IEEE 802.3af;

Full HD

Low Light

WDR

PoE

AIR+H₂O
COOLED

HIGH TEMPERATURE CAMERA

Technical Specification

		ACQ07X005	ACQ07X0P5	ACQ07X006	ACQ07X0P6
SENSOR	Sensor type	1/2.8-inch CMOS			
	Effective pixels	1920 x 1080 (2MP)			
PERFORMANCE	Resolution	up to Full HD			
	Sensitivity	Color: 0.0069Lux; Monochrome: 0.0008Lux			
	High Dynamic Range	120 dB WDR			
	Video compression	H.264 (MP); M-JPEG			
	Video Streaming	Multiple configurable streams in H.264 and MJPEG, configurable frame rate and bandwidth. Regions of Interest (ROI)			
	Processing latency	<55 ms (max average at 1080p60)			
	GOP structure	IP, IBP, IBBP			
	Encoding interval	1 to 50 [60] fps			
LENS	Focal length	3 - 10,5 mm, F1-1.4		5 - 60 mm, F1-1.6	
	Horizontal field	83° ~ 34°12		49° ~ 5°24	
	Type (Iris / focus)	Manual and DC-Iris auto-detect with override DC-iris drive: max 50mA continuous			
	Lens mount	CS mount (C-mount with adapter ring)			
	Lens connector	Standard 4-pin DC-iris connector			
VIDEO FUNCTIONS	Day/Night	Color, Monochrome, Auto			
	Adj. picture settings	Contrast, Saturation, Brightness			
	White Balance	2500 to 10000K, 4 automatic modes; manual and hold mode			
	Shutter	Automatic Electronic Shutter (AES) Fixed shutter (1/25[30] to 1/15000) selectable; Default shutter			
	BLC / Contrast enhanc.	On/Off			
	Noise reduction	Intelligent Dynamic Noise Reduction with separate temporal and spatial adjustments			
	Signal-to-noise ratio	>55 dB (SNR)			
	Sharpness	Sharpness enhancement level selectable			
	Intelligent defog	Automatically adjusts parameters for best picture in foggy or misty scenes (switchable)			
	Privacy Masking	8 independent areas, fully programmable			
	Other functions	Image mirror, Image flip, Image rotation, Camera LED, Video watermarking, Tamper detection, Recording, etc.			
WATER COOLING	Connection	2 x 1/2" M BSPP			
	Temperature IN	35°C max			
	Flow	from 2 l/min to 6 l/min			
	Pressure entry	from 2 bar to 6 bar			
	Pressure in exit	0 bar (free outlet)			
	Quality	pH 6-8, suspensions max 10 mg/l			
AIR FOR COOLING AND CLEANING LENS	Connection	1/4" M BSPP			
	Temperature IN	40°C max			
	Consumption	around 3 Nm³/h			
	Pressure entry	from 1 bar to 2 bar			
	Quality	Instrumental Air ISO 8573-1 Classe 1.2.1			
ENVIRONMENTAL	Operating Temperature	5°C ~ 400°C			
	Humidity	Less than 90%, non condensing			
POWER	Input	IN: 96-264Vac, 50/60Hz;	PoE IEEE 802.3af	IN: 96-264Vac, 50/60Hz;	PoE IEEE 802.3af
PHYSICAL	Material	Housing	AISI304 stainless steel		
		JBX	Aluminum		
	Dimensions	Housing	internal 350 mm x (Ø)90 mm external dim.: (L)380 x (Ø)129 mm		
		JBX	195 x 251 x 87 mm		
	Connection Kit	Galvanized armoured steel hose with cables. L=1,5 m			
	Mounting	Bracket for wall mounting with swivel included			
	Weight	Total	15 Kg		



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